

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) ~~In~~ Closed loop power control apparatus for a communication system having a sending station and a receiving station, the sending station for sending a communication signal upon a communication channel, to the receiving station, the communication channel susceptible to fading and the sending station and the receiving station positioned in a closed-loop power-control feedback control arrangement, ~~an improvement of said~~ closed loop power control apparatus for selectively controlling power levels of the communication signal sent by the sending station, said power control apparatus comprising:

a determiner embodied at the receiving station and coupled to receive indications of the communication signal, once transmitted upon the communication channel and received at the receiving station and to receive indications of power control change indications previously sent to the sending station, the determiner for determining, at least when fading exhibited by the communication channel upon which the communication signal is sent ~~causes fading of the communication signal by the sending station~~ beyond a selected threshold, the fading exhibited by the communication channel determined to be beyond the selected threshold when a selected number of successive power control change indications request increase in the power levels of the communication signal; and

a power controller also embodied at the receiving station and coupled to receive indications of determinations made by said determiner, said power controller for selectively providing power control change indications of levels responsive to determinations made by said determiner to the sending station, the power control change indications forming requests requesting an increase, or decrease, in power levels of the communication signal when subsequently sent by the sending station upon the communication channel, the power control change indications of levels that request the power levels of the communication signal,

subsequently to be sent by the sending station, not to be increased if the determiner determines the fading of the communication signal to be beyond the selected threshold.

2. (Original) The power control apparatus of claim 1 wherein said determiner is coupled to receive indications of both a signal strength of the communication signal and noise levels of noise, said determiner for determining a signal-to-noise ratio and, responsive to a value of the signal-to-noise ratio less than a selected value, for determining the fading exhibited by the communication channel to be beyond the selected threshold.

3. (Previously presented) The power control apparatus of claim 1 wherein said determiner is further for determining, subsequent to determining when the fading exhibited by the communication channel is beyond the selected threshold, when the fading exhibited by the communication channel returns to be within the selected threshold, said determiner for determining the fading to be within the selected threshold responsive to the value of a signal-to-noise ratio returning to be greater than a selected value.

4. (Previously presented) The power control apparatus of claim 3 wherein said power controller further provides power control change indications to the sending station to request an increase in power levels of the communication signal when the fading exhibited by the communication channel returns to be within the selected threshold.

5. (Cancelled)

6. (Currently Amended) The power control apparatus of claim 5_1 wherein said determiner is further for determining, subsequent to determining when the fading exhibited by the communication channel is beyond the selected threshold, when the fading exhibited by the communication channel returns to be within the selected threshold.

7. (Original) The power control apparatus of claim 6 wherein said power controller further provides power control change indications to the sending station to permit an increase in power levels of the communication signal when the fading exhibited by the communication channel returns to be within the selected threshold.

8. (Original) The power control apparatus of claim 1 wherein a pilot signal is further broadcast by the sending station to the receiving station and wherein said determiner is coupled to receive indications of both a signal strength of the pilot signal and an average value of the signal strength of the pilot signal, said determiner for comparing the indications of the signal strength of the pilot signal with the indications of the average value to form a comparison therebetween, said determiner for determining the fading exhibited by the communication channel to be beyond the selected threshold when the comparison is less than a selected level.

9. (Original) The power control apparatus of claim 1 wherein a pilot signal is further broadcast by the sending station to the receiving station and wherein said determiner is coupled to receive indications of a derivative of signal strength of the pilot signal, said determiner for determining the fading exhibited by the communication channel when the derivative is at least a selected negative value.

10. (Previously presented) The power control apparatus of claim 1 wherein said power controller further provides at least one power control change indication to the sending station to request a decrease in the power levels of the communication signal if the determiner determines the fading of the communication signal if the determiner determines the fading of the communication signal to be beyond the selected threshold.

11. (Previously presented) The power control apparatus of claim 10 wherein said power controller provides a selected plurality of power control change indications to the sending

station to request the decrease in the power levels of the communication signal by a selected magnitude of power level decrease.

12. (Previously presented) The power control apparatus of claim 11 wherein, subsequent to providing the selected plurality of power control change indications to the sending station, said power controller provides subsequent power control change indications to the sending station to maintain the decrease in the power levels of the communication signal to be of the selected magnitude of power level decrease.

13. (Previously presented) The power control apparatus of claim 1 wherein the communication system comprises of CDMA (code division multiple access) communication system, wherein the sending station comprises a base station of network infrastructure of the cellular communication system, wherein the receiving station comprises a mobile station and wherein ~~at least a portion of~~ said determiner is located at the mobile station.

14. (Original) The power control apparatus of claim 13 wherein at least a portion of said power controller is located at the mobile station.

15. (Original) The power control apparatus of claim 13 wherein the communication channel comprises a forward-link traffic channel and wherein said determiner determines whether the forward link traffic channel exhibits a deep fade condition.

16. (Currently Amended) A closed-loop power control method for selectively controlling power levels of a communication signal sent by a sending station upon a communication channel to a receiving station, the communication channel susceptible to fading and the sending station and the receiving station positioned in a closed-loop power-control feedback control arrangement, said method comprising:

determining at the receiving station, responsive to indications of the communication signal once transmitted upon the communication channel and received at the receiving station and responsive to power control change indications previously sent to the sending station, at least when fading exhibited by the communication channel upon which the communication signal is ~~sent by the sending station causes fading of the communication signal~~ beyond a selected threshold, the fading exhibited by the communication channel determined to be beyond the selected threshold when a selected number of successive power control change indications request increase in the power levels of the communication signal;

selectively ~~formed~~ forming power control change indications to the sending station responsive to determinations made during said operation of determining, the power control indications of levels forming requests requesting an increase, or decrease, in power levels of the communication signal when subsequently sent upon the communication channel, the power control change indications of levels that request the power levels of the communication signal, subsequently to be sent, not to be increased if the fading of the communication signal determined during said operation of determining is determined to be beyond the selected threshold; and

returning the power control change indications selectively formed during said operation of selectively forming, to the sending station.

17. (Previously presented) The method of Claim 16 wherein the power control change indications, sent during said operation of selectively forming power control change indications, are of levels to cause a decrease in the power levels of the communication signal if the fading is determined to be beyond the selected threshold.

18. (Original) The method of claim 16 comprising the additional operations of:
subsequently determining when fading exhibited by the communication channel no longer causes fading of the communication signal beyond the selected threshold; and
re-enabling normal power control change indications to the sending station.

19. (Previously presented) The method of claim 16 wherein the sending station comprises a base station of a cellular communication system and the receiving station comprises a mobile station and wherein said operations of determining, selectively forming, and returning are performed at the mobile station.

20. (New) Closed loop power control apparatus for a communication system having a sending station and a receiving station, the sending station for sending a communication signal upon a communication channel susceptible to fading and the sending station and the receiving station positioned in a closed-loop power-control feedback control arrangement, said closed loop power control apparatus for selectively controlling power levels of the communication signal sent by the sending station, said power control apparatus comprising:

a determiner embodied at the receiving station and coupled to receive indications of the communication signal and to receive indications of a derivative of signal strength of the pilot signal, once transmitted upon the communication channel and received at the receiving station, the determiner for determining, at least when fading exhibited by the communication channel upon which the communication signal is beyond a selected threshold and for determining the fading exhibited by the communication channel when the derivative is at least a selected negative value; and

a power controller also embodied at the receiving station and coupled to receive indications of determinations made by said determiner, said power controller for selectively providing power control change indications of levels responsive to determinations made by said determiner to the sending station, the power control change indications forming requests requesting an increase, or decrease, in power levels of the communication signal when subsequently sent by the sending station, not to be increased if the determiner determines the fading of the communication signal to be beyond the selected threshold.